

CLAIMS

1. Method for managing radio resources in a UMTS type mobile communication network, said radio resources being allocated by a radio access controller (RNC) of a radio access network (UTRAN) of the (UMTS) network, in order to support a plurality of service requests sent by user equipment (UE) to a core network (CN) of the UMTS network, each service being specified by a set of quality of service parameters recorded within an entity (HLR) of the core network, each of said service requests being processed by the core network sending to said radio network controller (RNC) a corresponding request for allocation of radio resources, comprising a bearer service request for radio access describing the required quality of service in the form of a set of RAB parameters whose value is defined by mapping with the corresponding quality of service parameters of the core network, said radio network controller (RNC) being provided for distributing the radio resources of the access network (UTRAN) amongst the various radio access bearer services corresponding to the various service requests and for implementing a procedure to pre-empt

said resources, aiming to modulate the allocation of the resources to said bearer services according to a priority level associated with each of them, so as to satisfy the quality of service required for the bearer services based on their priority level, said method being characterised in that said priority level is defined for each bearer service by the "priority level" sub-parameter of the "Allocation Retention Priority" RAB parameter, whose value is determined by taking into account, on the one hand, the value of said "Allocation Retention Priority" quality of service parameter of the core network and, on the other hand, the value of at least one quality of service parameter associated with the type of service.

2. Method of claim 1, characterised in that the quality of service parameters associated with the type of service, used to determine the value assigned to the "Priority Level" sub-parameter defining the priority level for the corresponding bearer service, include the "Traffic Class" parameter.

3. Method of claim 2, characterised in that the quality of service parameters associated with the type of service used for determining the value assigned to the "Priority Level" sub-parameter defining the priority level for the corresponding bearer service, further include the "Traffic Handling Priority" parameter, making it possible to prioritise the interactive-type services in relation to each other.

4. Method as claimed in any of the preceding claims, characterised in that the procedure for pre-empting resources at the access network level (UTRAN)

is implemented when the radio network controller (RNC) receives at least one new bearer service request for radio access, in the case where there are no more available radio resources, or if the radio resources  
5 required to satisfy the quality of service associated with said new request are insufficient.

5. Method as claimed in any of the preceding claims, characterised in that the procedure for pre-empting resources at the access network level (UTRAN)  
10 is implemented when the radio network controller (RNC) receives at least one request for additional resources in order to respond to a change in the traffic on said network brought about by at least one bearer service already active within said network, when  
15 there are no more available radio resources, or if the radio resources required to satisfy the request for additional resources are insufficient.

6. Method as claimed in any of the preceding claims, characterised in that, in the case where at  
20 least two bearer services already active within the network are the subject, respectively, of a request for additional resources and where the resources required to satisfy said requests are available, a prioritisation step for the allocation of the resources  
25 is implemented so as to determine, based on the priority level associated with each of said bearer services, to which of said bearer services the additional resources will be assigned on a priority basis.

30 7. Method as claimed in any of the preceding claims, characterised in that, in the case where at

least two radio access bearer services already active within the network do not utilise the resources that have allocated to them in an optimal manner, a prioritisation step is implemented amongst said bearer  
5 services, so as to reduce the resources allocated to said bearer services in an order defined by the priority level associated with each of said bearer services.